

Fig. 16 shows the surgical bandage after the two end segments have been separated from the central bridging segment, 17, using the "pull strings."

Example 6.

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Preferably, the present invention can be distributed as a wound treatment kit having at least one bandage packaged in a sterile condition and a source of tissue adhesive.

The described embodiments of the present invention are intended to be illustrative rather than restrictive, and are not intended to represent every embodiment of the present invention. Various modifications and variations can be made without departing from the spirit or scope of the invention as set forth in the following claims both literally and in equivalents recognized in law.

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WHAT IS CLAIMED

1. A surgical bandage comprising:

an adhesive strip containing an opening or a plurality of openings;

wherein the strip can be adhered to a tissue surface in a manner that closes a tissue

20 separation, with the opening extending across the tissue separation;

and wherein fluid applied from one side of the bandage, through the opening or openings, can directly contact the closed tissue separation and the adjacent surrounding surfaces on the other side of the bandage.

2. The surgical bandage of claim 1 wherein the tissue separation is an open wound, laceration or surgical incision.

5 3. The surgical bandage of claim 1 wherein the bandage can be adhered to a tissue surface of either a human or a non-human animal.

4. The surgical bandage of claim 1 further comprising additional layers or material, suitable for raising the elevated central bridging segment.

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5. The surgical bandage of claim 1 wherein the opening or openings have a singular shape or various shapes selected from any one of geometric, circular or irregular shapes or any combination thereof.

15 6. The surgical bandage of claim 1 packaged as a continuous roll with alternating tape segments and a segment containing an opening or openings or a plurality of openings.

7. The surgical bandage of claim 1 formed from transparent material.

20 8. The surgical bandage of claim 1 wherein any part is manufactured from bio-absorbable material.

9. The surgical bandage of claim 1 further comprising of at least one separable protective layer which must be removed to achieve adhesion.
10. The surgical bandage of claim 1 further comprising means for detaching adhesive strip material from either side of the opening or openings.
11. The surgical bandage of claim 10 wherein means for detaching adhesive strip material are pull strings.
- 10 12. The surgical bandage of claim 1 wherein the bandage is non-absorbent.
13. The surgical bandage of claim 1 sterilized and packaged in sterile condition.
14. The surgical bandage of claim 1 wherein the fluid or aerosolized form of the fluid is selected from the group consisting of a gel, lotion, liquid water solution such as sterile saline, bio-adhesive, synthetic adhesive, cyanoacrylate, enhanced viscosity cyanoacrylate, tissue sealant, cream, ointment, fibrin, fibrin-like substance, medicament, anesthetic, antibiotic, wound healing agent, and combinations thereof.
- 20 15. The surgical bandage of claim 1 wherein the opening or openings allow direct visualization of the tissue separation before, during and after the process of closing the tissue separation.

16. The surgical bandage of claim 1 wherein the opening or openings allow the expression of blood and transudates which can be removed by wiping or blotting during or after the process of tissue closure.
- 5 17. The surgical bandage of claim 1 wherein the opening or openings allow substances to pass through unobstructed from both sides.
- 10 18. A method of wound closure comprising the steps of affixing one end of the surgical bandage of claim 1 to one side of the open wound; pulling on the other end of the surgical bandage of claim 1 in a manner to substantially close the open wound; affixing the other end of the surgical bandage of claim 1 to one other side of the substantially closed wound; and visualizing at least a portion of the open wound through the opening or plurality of openings of the surgical bandage of claim 1; and wiping and blotting away expressed blood and transudate; and dispensing through the opening or plurality of openings a fluid, wherein the fluid flows through at least one unobstructed fluid path in the opening or openings to directly contact the substantially closed wound.
- 20 19. A wound closure kit comprising;
the surgical bandage of claim 1; and
a tissue adhesive.

20. A surgical bandage comprising :

two end segments with adhesive on at least one side and

a central bridging segment set between said end segments;

- 5 wherein the end segments can be adhered to a tissue surface in a manner that closes a tissue separation with the central bridging segment extending across the tissue separation; and wherein the central bridging segment contains an opening or openings through which fluid applied from one side can directly contact the closed tissue separation and the adjacent surrounding surfaces on the other side.

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21. The surgical bandage of claim 20 wherein the tissue separation is an open wound, laceration or surgical incision.

22. The surgical bandage of claim 20 wherein the bandage can be adhered to a tissue 15 surface of either a human or non-human animal.

23. The surgical bandage of claim 20 wherein the end segments and central bridging segment are formed from the same material and exist as a single continuous piece.

20 24. The surgical bandage of claim 20 wherein the central bridging segment contains a single opening framed by material from which the end segments are formed.

25. The surgical bandage of claim 20 wherein the central bridging segment contains a plurality of openings framed by material from which the end segments are formed.
- 5 26. The surgical bandage of claim 20 wherein the central bridging segment contains a single opening or "window."
27. The surgical bandage of claim 20 wherein the central bridging segment contains a plurality of openings.
- 10 28. The surgical bandage of claim 20 wherein the end segments and central bridging segment are formed from different material.
29. The surgical bandage of claim 20 further comprising means of elevating the central bridging segment above the tissue surface.
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30. The surgical bandage of claim 29 wherein means of elevating the central bridging segment above the tissue surface comprise additional layers or other thickening material.
- 20 31. The surgical bandage of claim 20 wherein the central bridging segment is formed by strands or fibers arranged parallel or otherwise.
32. The surgical bandage of claim 20 wherein openings in the central bridging segment consist of spaces between strands or fibers .

33. The surgical bandage of claim 20 packaged as a continuous roll of alternating end segments and central bridging segments.
- 5 34. The surgical bandage of claim 20 wherein central bridging segment contains adhesive on one side.
- 10 35. The surgical bandage of claim 20 wherein at least one of the end segments has two or more appendages.
36. The surgical bandage of claim 20 further comprising means for detaching end segments.
- 15 37. The surgical bandage of claim 36 wherein means for detaching the end segments are pull strings.
38. The surgical bandage of claim 20 wherein the end segments are formed from transparent material.
- 20 39. The surgical bandage of claim 20 wherein the central bridging segment is formed from transparent material.

40. The surgical bandage of claim 20 wherein any part is manufactured from bio-absorbable material.
41. The surgical bandage of claim 20 further comprising of at least one separable
5 protective layer which must be removed to achieve adhesion.
42. The surgical bandage of claim 20 wherein the end segments are non-absorbent.
43. The surgical bandage of claim 20 wherein the central bridging segment is non-
10 absorbent.
44. The surgical bandage of claim 20 sterilized and packaged in sterile condition.
45. The surgical bandage of claim 20 wherein the fluid or aerosolized form of the fluid is
15 selected from the group consisting of a gel, lotion, liquid water solution such as sterile saline, bio-adhesive, synthetic adhesive, cyanoacrylate, enhanced viscosity cyanoacrylate, tissue sealant, cream, ointment, fibrin, fibrin-like substance, medicament, anesthetic, antibiotic, wound healing agent, and combinations thereof.
- 20 46. The surgical bandage of claim 20 wherein the opening or openings allows direct visualization of the tissue separation before, during and after the process of closing the tissue separation.

47. The surgical bandage of claim 20 wherein the opening allows the expression of blood and transudates which can be removed by wiping or blotting during or after the process of tissue closure.

5 48. The surgical bandage of claim 20 wherein the opening allows substances to pass through unobstructed from both sides.

49. The surgical bandage of claim 20 wherein the central bridging segment is elevated above the tissue surface and supported by the end segments.

10 50. The surgical bandage of claim 49 wherein the central bridging segment is elevated and supported by at least two separate and distinct wedge-shaped or thickened bridge supports or end segments that have adhesive on at least one side so that they can be pre-applied to the surfaces adjacent to a tissues separation and the central bridging segment
15 can be subsequently adhered to them.

51. A method of wound closure comprising the steps of
affixing one end of the surgical bandage of claim 20 to one side of the open wound;
pulling on the other end of the surgical bandage of claim 20 in a manner to substantially
20 close the open wound;
affixing the other end of the surgical bandage of claim 20 to one other side of the
substantially closed wound; and
allowing expression of blood and transudate which can be blotted away; and

visualizing at least a portion of the open wound through the central bridging segment of
the surgical bandage of claim 20; and
dispensing through the central bridging segment a fluid, wherein the fluid flows through
at least one unobstructed fluid path of the central bridging segment to directly contact the
5 substantially closed wound.

52. A wound closure kit comprising;
the surgical bandage of claim 20; and
a tissue adhesive.